Programs of Study

2013-2014 Academic Year

The revised Programs of Study and corresponding courses are outlined below by Career Cluster. For more information on the specific courses, please visit our career cluster webpage at http://www.tn.gov/education/cte/Career_Clusters/Career_Clusters.shtml.

Agriculture, Food, & Natural Resources

Program of Study	Level 1	Level 2	Level 3	Level 4
Veterinary Science	Agriscience 5957 -or- Principles of Agriculture Sciences 5947	Small Animal Care 5958	Livestock Management 5962 -and/or- Horse Science 5955	Veterinary Science 5961
	Supervised Agricultural Experience 5964			
Animal Production	Agriscience 5957 -or- Principles of Agriculture Sciences 5947	Advanced Principles of Agriculture Sciences 5948	Livestock Management 5962	Animal Bio-Technology 5967
	Supervised Agricultural Experience 5964			
Power, Structures, and Technical Systems	Agriscience 5957 -or- Principles of Agriculture Sciences 5947	Agriculture Mechanics and Maintenance 5944	Agriculture Power and Equipment 5945	Agricultural Engineering 5963
	Supervised Agricultural Experience 5964			

Agribusiness	Agriscience 5957 -or- Principles of Agriculture Sciences 5947	Leadership Communications 5956	Agricultural Sales and Marketing 5946	Agricultural Business Finance 5943 -and/or- Agricultural Economics 5965
	Supervised Agricultural Experience 5964			
Environmental and Natural Resource Systems	Agriscience 5957 -or- Principles of Agriculture Sciences 5947	Forestry Management 5953	Wildlife Management and Recreation 5959	Plant and Soil Science 5950
	Supervised Agricultural Experience 5964			
Landscaping and Turf Science	Agriscience 5957 -or- Principles of Horticulture Sciences 5966	Landscaping and Turf Management 5951	Greenhouse Management 5954	Plant Bio-Technology 5960
	Supervised Agricultural Experience 5964			
Horticulture Production	Agriscience 5957 -or- Principles of Horticulture Sciences 5966	Aquaculture / Hydroponics 5949 -and/or- Floral Design 5952	Greenhouse Management 5954	Plant Bio-Technology 5960
	Supervised Agricultural Experience 5964			
Applied Horticulture Technology	Agriscience 5957 -or- Principles of Horticulture Sciences 5966	Agriculture Mechanics and Maintenance 5944	Landscaping and Turf Management 5951	Agricultural Business / Finance 5943
	Supervised Agricultural Experience 5964			

Agriculture Education	Agriscience 5957 -or- Principles of Agriculture Sciences 5947	Advanced Principles of Agriculture Sciences 5948	Leadership Communications 5956	Plant and Soil Science 5950
	Supervised Agricultural Experience 5964			

NOTES:

1. The word "or" signifies that credit can be earned toward the fulfillment of the Program of Study in either course, but not both. The term "and/or" means a student may choose either course or both courses for credit toward the POS.

2. Agriscience satisfies the laboratory science credit requirement.

3. Supervised Agricultural Experience (SAE) is the work-based learning component for AFNR. Students with an approved SAE can earn ½ credit each year (maximum of 2 credits) with at least 180 documented hours of SAE work experience.

Architecture & Construction

Program of Study	Level 1	Level 2	Level 3	Level 4
Production Design	Computer Aided Drafting I 6037	Computer Aided Drafting II 6039 -or- CAD II/Advanced Drafting 6038	Advanced Drafting and Design 5927	Business Principles 5905 or 3709
Electrical Systems	Construction Core 6073	Electrical I 6074	Electrical II 6075	Business Principles 5905 or 3709
Masonry Construction	Construction Core 6073	Masonry I 6079	Masonry II 6080	Business Principles 5905 or 3709
Concrete Construction	Construction Core 6073	Concrete I 6040	Concrete II 6041	Business Principles 5905 or 3709
Plumbing	Construction Core 6073	Plumbing I 6081	Plumbing II 6082	Business Principles 5905 or 3709
Heating, Ventilation, Air Conditioning, and Refrigeration	Construction Core 6073	HVAC/R I 6076	HVAC/R II 6077	Business Principles 5905 or 3709
Welding Technology	Introduction to Welding 6078	Basic Principles of Welding 6034	Advanced Welding Applications and Certification 6033	Business Principles 5905 or 3709
Carpentry	Construction Core 6073	Carpentry I 6035	Carpentry II 6036	Business Principles 5905 or 3709

Interior Design	Interior Design 6014	Computer Aided Drafting I 6037	Housing 6006	Business Principles 5905 or 3709
Landscape Design	Agriscience 5957 -or- Principles of Horticulture Sciences 5966	Landscaping and Turf Management 5951	Computer Aided Drafting I 6037	Greenhouse Management 5954

NOTES:
1. The word "or" signifies that credit can be earned toward the fulfillment of the Program of Study in either course, but not both.
2. Business Principles is an optional capstone course, which can add value to the more traditional pathways, especially for those students who are interested in owning their own businesses.

Arts, Audio/Visual Technology, & Communications

Program of Study	Level 1	Level 2	Level 3	Level 4
Printing Graphics	Digital Arts and Design I 6084	Printing Graphics Technology I 6088	Printing Graphics Technology II 6043	
Design Communications	Digital Arts and Design I 6084	Digital Arts and Design II 6086 -or- Digital Arts and Design II/III 6085	Digital Arts and Design III 6087	Animation Simulation and Motion Graphics 6044
Audio Production	Audio Production I 6045	Audio Production II 6047 -or- Audio Production II/III 6046	Audio Production III 6048	
Journalism and Broadcasting	Broadcasting I 6049	Broadcasting II 6050	Broadcasting III 6083	
Fashion Design	Visual Art I 3501	Fashion Merchandising and Design 6009	Textiles and Apparel 6008	Retail Operations 5938

NOTE: The word **"or"** signifies that credit can be earned toward the fulfillment of the Program of Study in either course, but not both.

Business Management & Administration

Program of Study	Level 1	Level 2	Level 3	Level 4
Business Management	Computer Applications 5891, 3638, or 3721	Personal Finance 5901, 3496, or 3767 -and/or- Business Principles 5905 or 3709 -and/or- Exploration of Organizational Leadership & Marketing 5941	Business Management 5889	Entrepreneurship 5934 -and/or- Accounting I 5910 or 3701 -and/or- Virtual Enterprise International 5900
Administrative and Information Support	Computer Applications 5891, 3638, or 3721	Personal Finance 5901, 3496, or 3767 -and/or- Business Principles 5905 or 3709 -and/or- Exploration of Organizational Leadership & Marketing 5941	Administrative Management 5895	Advanced Computer Applications 5904

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Education & Training

Program of Study	Level 1	Level 2	Level 3	Level 4
Teaching Training Services	Child and Lifespan Development 6013	Teaching as a Profession 6010		
Pre-K and Early Childhood Education	Child and Lifespan Development 6013	Early Childhood Education Careers I 6015	Teaching as a Profession 6010	

NOTE: Districts may choose to add a third course to the Teaching Training Services Program of Study, based on student need. Adding an appropriate course would allow a student to meet requirements for an elective focus. If a student completes both courses in the Teaching Training Services Program of Study as outlined here, they qualify as a CTE Concentrator.

Finance

Program of Study	Level 1	Level 2	Level 3	Level 4
Banking and Finance	Computer Applications 5891, 3638, or 3721	Personal Finance 5901, 3496, or 3767 -and- Business Economics 5898, 3749, or 3751	Accounting I 5910 or 3701	Banking and Finance 5899 -and/or- Accounting II 5911 or 3702 -and/or- Financial Planning 5890 or 3713

NOTE: The term "and/or" means a student may choose one course or multiple courses for credit toward the POS.

Government & Public Administration

Program of Study	Level 1	Level 2	Level 3	Level 4
National Security	Criminal Justice I 5987	Networking 6097	Criminal Justice II 5988 -or- Criminal Justice II/III 5971	

NOTE: The word **"or"** signifies that credit can be earned toward the fulfillment of the Program of Study in either course, but not both.

Health Sciences

Program of Study	Level 1	Level 2	Level 3	Level 4
Biotechnology	Health Science Education 5998	Diagnostic Medicine 5994	Anatomy and Physiology 5991 or 3251	Biomedical Applications 5992
			Clinical Internship 5993	
Forensic Science	Health Science Education 5998	Diagnostic Medicine 5994	Anatomy and Physiology 5991 or 3251	Forensic Science 5996
Diagnostic Services	Health Science Education 5998	Diagnostic Medicine 5994	Anatomy and Physiology 5991 or 3251 -and/or- Medical Terminology 5883	Clinical Internship 5993
Health Informatics	Health Science Education 5998	Computer Applications 5891, 3638 or 3721 -and/or- Medical Terminology 5883	Health Information Technology 5997	Clinical Internship 5993
Therapeutic Nursing Services	Health Science Education 5998	Medical Therapeutics 5999	Nursing Education 6000	Anatomy and Physiology 5991 or 3251 -and/or- Medical Terminology 5883
				Clinical Internship 5993
Therapeutic Emergency Services	Health Science Education 5998	Medical Therapeutics 5999	Anatomy and Physiology 5991 or 3251	Emergency Medical Services 5995
				Clinical Internship 5993
Therapeutic Clinical Services	Health Science Education 5998	Rehabilitation Careers 5990	Medical Therapeutics 5999	Anatomy and Physiology 5991 or 3251 -and/or- Clinical Internship 5993

Note: The term "and/or" means a student may choose one course or multiple courses for credit toward the POS.

Hospitality & Tourism

Program of Study	Level 1	Level 2	Level 3	Level 4
Culinary Arts	Culinary Arts I 5979	Culinary Arts II 5980 -or- Culinary Arts II/III 5977	Culinary Arts III 5981	
Hospitality and Tourism Management	Marketing and Management I Principles 5931	Travel and Tourism Operations 5933	Hospitality Management 5940	
Sports and Entertainment Management	Marketing and Management I Principles 5931	Travel and Tourism Operations 5933	Sports and Entertainment Marketing 5939	

NOTE: The word "or" signifies that credit can be earned toward the fulfillment of the Program of Study in either course, but not both.

Human Services

Program of Study	Level 1	Level 2	Level 3	Level 4
Family and Community Services	Family and Consumer Sciences 6003	Nutrition and Foods 6005	Child and Lifespan Development 6013	Life Connections 6011 -and/or- Sociology 3432
Early Childhood Development	Early Childhood Careers I 6015	Early Childhood Careers II 6016 -or- Early Childhood Careers II/III 6018	Early Childhood Careers III 6017	
Counseling and Mental Health Services	Family and Consumer Sciences 6003	Child and Lifespan Development 6013	Family and Parenting 6004	Psychology 3433
Consumer Services	Computer Applications 5891, 3638, or 3721	Personal Finance 5901, 3496, or 3767	Consumer Economics 6002	Financial Planning 5890 or 3713
Nutrition Counseling	Child and Lifespan Development 6013	Nutrition and Foods 6005	Nutrition Science 6007	Psychology 3433
Cosmetology	Principles of Cosmetology 5983	Design Principles of Cosmetology 5986 -or- Design Principles of Cosmetology/Chemistry of Cosmetology 5985	Chemistry of Cosmetology 5984	
Barbering	Barbering I 5972	Barbering II 5973	Barbering III 5974	

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Information Technology

Program of Study	Level 1	Level 2	Level 3	Level 4
Multimedia Management	Computer Applications 5891, 3638, or 3721	Interactive Multimedia Presentation 5897, 3752, or 3639	Web Design Essentials 5902	Web Design Applications 5903 -and/or- Desktop Publishing 5896
Software Development	Computer Applications 5891, 3638, or 3721	Computer Programming I 5906 or 3782	Computer Programming II 5907 or 3783	Game Programming 5908 -and/or- AP Computer Science 3635 or 3636
Networking Systems	Information Technology Foundations 6095	Computer Systems 6094	Networking 6097	Cabling and Internetworking 6093
				IT Clinical 6096
Web Design	Web Page Design I Foundations 6100	Web Page Design II Site Designer 6101	Web Page Design III eCommerce 6092	
Programming and Logic	Information Technology Foundations 6095	Programming and Logic I 6098	Programming and Logic II 6099	
Electronic Publishing	Word Processing 5912	eBusiness Communications 5888	Desktop Publishing 5896	Advanced Computer Applications 5904

Note: The word "or" signifies that credit can be earned toward the fulfillment of the Program of Study in either course, but not both. The term "and/or" means a student may choose one course or multiple courses for credit toward the POS.

Law, Public Safety, Corrections, & Security

Program of Study	Level 1	Level 2	Level 3	Level 4
Law Enforcement Services	Criminal Justice I 5987	Criminal Justice II 5988 -or- Criminal Justice II/III 5971	Criminal Justice III Forensic Science Investigation 5989	

NOTE: The word "or" signifies that credit can be earned toward the fulfillment of the Program of Study in either course, but not both.

Manufacturing

Program of Study	Level 1	Level 2	Level 3	Level 4
Manufacturing and Machining Technology	Principles of Machining 5929 -and/or- Principles of Engineering 5924	Digital Electronics 5925 -and/or- Principles of Manufacturing 5922	Principles of Machining and Manufacturing 5923	Manufacturing Applications 5926
Electromechanical Technology	Intro to Electromechanical 6091	Digital Electronics 5925 -and/or- Electromechanical I 6089	Electromechanical II 6090	

Note: The term "and/or" means a student may choose one course or multiple courses for credit toward the POS.

Marketing

Program of Study	Level 1	Level 2	Level 3	Level 4
Marketing Communication	Marketing and Management Principles I 5931	Advertising and Public Relations 5936	Web Design Essentials 5902 -and/or- Interactive Multimedia Presentation 5897, 3752, or 3639	Sports and Entertainment Marketing 5939 -and/or- Virtual Enterprise 5900 -and/or- Market Research and Analysis 5937
Entrepreneurship	Exploration of Organizational Leadership & Marketing 5941 -and- Personal Finance 5901, 3496, or 3767	Marketing and Management I Principles 5931	Entrepreneurship 5934	Retail Operations 5938 -and/or- Virtual Enterprise 5900 -and/or- International Business and Marketing 5935
Merchandising	Exploration of Organization Leadership and Marketing 5941	Marketing and Management Principles I 5931	Retail Operations 5938	Marketing and Management II Advanced Strategies 5932 -and- International Business and Marketing 5935 (optional)

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Science, Technology, Engineering, & Mathematics

Program of Study	Level 1	Level 2	Level 3	Level 4
Technology Design	Foundations of Technology 5917	Technological Design 5885	Advanced Design Applications 5920	Engineering Design 5921 -and- AP Physics 3233 (optional)
Engineering (Project Lead the Way)	Introduction to Engineering (PLTW) 6054	Principles of Engineering (PLTW) 6052	Choice of the following: Aerospace Engineering (PLTW) 6057 Civil Engineering (PLTW) 6056 Biotechnical Engineering (PLTW) 6058 Digital Electronics (PLTW) 6053 Computer Integrated Manufacturing (PLTW) 6055	Engineering Design and Development (PLTW) 6059

Note: The AP Physics course in the Technology Design is an optional capstone course and is not required for students to complete the Program of Study.

Transportation, Distribution, & Logistics

Program of Study	Level 1	Level 2	Level 3	Level 4
Automotive Technology	Transportation Core 6071	Automotive: Brakes 6028	Automotive: Suspension and Steering 6031	Automotive: Electrical/Electronics 6029
				Automotive: Engine Performance 6030
Automotive Maintenance and Light Repair	Transportation Core 6071 -or- Maintenance and Light Repair I 5879	Maintenance and Light Repair II 5880	Maintenance and Light Repair III 5881	Maintenance and Light Repair IV 5882
Collision Repair Technology	Transportation Core 6071	Collision Repair: Non-Structural 6062	Collision Repair: Painting and Refinishing 6063	Collision Repair: Structural 6064
Diesel Technology	Transportation Core 6071	Diesel: Preventative Maintenance 6067	Diesel: Electrical/Electronic 6065	Diesel Engine 6066
Aviation Maintenance	Transportation Core 6071	Aviation Maintenance I 6060	Aviation Maintenance II 6061	
Aviation Flight	Transportation Core 6071	Introduction to Aerospace 6068	Theory of Flight 6070	
2-4 Cycle Engines	Transportation Core 6071	2 and 4 Cycle Engine I 6025	2 and 4 Cycle Engine II 6026	2 and 4 Cycle Engine III 6027
Distribution and Logistics	Principles of Transportation, Distribution, and Logistics 6069	Warehouse and Distribution I 6072	Warehouse and Distribution II 6024	

NOTE: The word "or" signifies that credit can be earned toward the fulfillment of the Program of Study in either course, but not both.

Middle School Courses

Middle School Courses by Grade Level				Corresponding Career Clusters
5th Grade	**6th Grade**	**7th Grade**	**8th Grade**	
		Exploring Agricultural Sciences 0785	Exploring Agricultural Sciences 0885	• Agriculture, Food, & Natural Resources
Keyboarding 0510	Keyboarding 0610	Keyboarding 0710	Keyboarding 0810	• Business Management & Administration • Finance • Human Services • Information Technology • Marketing
		Document Formatting 0713	Document Formatting 0812	• Business Management & Administration • Finance • Information Technology • Marketing
Teen Living 0562	Teen Living 0648	Teen Living 0784	Teen Living 0884	• Education & Training • Human Services
Exploring Technology 0561	Exploring Technology 0647	Inventions and Innovations 0782	Technological Systems 0882	• Manufacturing • Science, Technology, Engineering, & Mathematics (STEM)

NOTE: While these courses are meant to provide a foundation for future success in Career and Technical Education courses at the secondary level, they are not funded by Career and Technical Education funds.